

Computer Science Bandung

Introduction

In the new millennium and the global era, the role of information and automation in the various domains and activities of the business industry are becoming more important. The successes of the activities are determined by how computer science can support in managing the information. Information must be up-to-date, accurate and comprehensive to allow decision makers to determine the enterprise's strategy. Furthermore, automation can facilitate human activity, accelerate the pace of work and make it more effective and efficient, while also increasing productivity in various activities. The development of communication and computer technology has made it possible to get information that is rapid, exact, and accurate. It also increases the application of automation in various fields such as industry, business, office affairs and development of science and technology.

The Computer Science Program was founded in September 1987, under STMIK Bina Nusantara; it became one of the programs under the coordination of the Faculty of Computer Science, Bina Nusantara University in December 1998.

Computer Science Program, Bina Nusantara University @Bandung emphasizes the processes, techniques, and tools that go into developing computer-based systems, with specialities in Internet of Things(IoT), intelligent systems, software engineering, data base system, game technology, mobile technology and computer security.

Vision

A world class study program by providing excellent educational experiences in computer science, fostering and empowering the society in building and serving the nation through digital and smart technology.

Mission

1. Educating students to effectively apply their educational experiences in computer science to solve real-world problems focus on smart technology and designpreneur approach.
2. Preparing our graduates to develop exemplary soft skills & technical skills required as ICT professionals, leaders and entrepreneurs in global market.
3. Promoting high impact research that contributes to the nation in smart technology themes.
4. Fostering BINUSIAN as lifelong learners through self-enrichment.
5. Empowering BINUSIAN to continuously improve and society's quality of life through smart technology and designpreneur approach

Program Objective

The objectives of the program are:

1. Graduates will become successful professionals in ICT fields
2. Graduates will obtain employment in global companies or become entrepreneurs
3. Graduates will obtain professional certification or continue their study to the postgraduate

Student Outcomes

After completing the study, graduates are:

1. Able to analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions

2. Able to design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of computer science
3. Able to communicate effectively in a variety of professional contexts
4. Able to recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles
5. Able to function effectively as a member or leader of a team engaged in activities appropriate to computer science
6. Able to apply computer science theory and software development fundamentals to produce computing-based solutions

Prospective Career of the Graduates

After finishing the program, the graduate of Computer Science Program could follow a career as:

- | | | |
|--------------------------------|---------------------------------------|---------------------------|
| 1. Software Engineer/Developer | 5. Database Specialist | 9. Researcher |
| 2. System Analyst/Developer | 6. Artificial Intelligence Specialist | 10. Multimedia Programmer |
| 3. Web Engineer/Developer | 7. Data Scientist | 11. Lecturer/Trainer |
| 4. Computer Network Specialist | 8. IT Support/Consultant | |

Curriculum

The curriculum of the Computer Science Program has been developed in line with the National Curriculum. Also, the local content has been developed in line with the Computer Science Curriculum standard of ACM (Association for Computing Machinery), several local and foreign universities, and market trends, so that the graduates of the Computer Science Program are expected to be able to face competition at both a national and international level.

Generally, the subjects of the curriculum 2019 are divided into these following groups of subjects:

Mathematics Group (Science)

The objective of this group is to provide an understanding of mathematics as one of the principal foundations of computer science. Another objective is to give an understanding of scientific methodology (data collection, hypothesis, research, analysis) in problem solving.

Character Building Group (Professional Practices)

The objective of this group is to develop the personal strengths of the student and to provide him or her with a professional character, professionalism in their field, management skills, oral and written communication skills, understanding of business ethic, ability to work as a team, and to develop a "Binusian" Character.

Core Group

The objective of this group is to provide a grounding in Computer Science through practice as well as applied theory which is required by business both now and in the future. The subjects that are included in this group are programming, algorithm design and analysis, software engineering, databases systems, computer graphics, multimedia technology, human and computer interaction, operation systems, computer architecture, and computer network.

Concentration Subject (Stream)

The objective of this group is to give students the opportunity to obtain a deep understanding of a range of disciplines in computer science. The students are expected to develop their skills and master the techniques which will allow them to research both their thesis and/or to continue their studies.

The Concentration subjects (Stream) provide:

1. Internet of Things: to explore the various techniques and implementation of IoT.
2. Cloud Technology: to explore various techniques for cloud management, especially managing the network and computing services.
3. Digital Creative Technology: focuses on competencies' development in smart software application development field based on big data analytics to support business innovation through digital transformation in Industry 4.0 era (Digital Business Innovation and Transformation).
4. Intelligent Systems: to explore the various techniques of computer intelligence that can be applied to solving problems.
5. Database Technology: to explore the various techniques of database technology that can be applied to solving problems.
6. Interactive Multimedia: to explore computer interactive multimedia applications, based on computer programming, design tools, and software engine.
7. Network Technology: to explore computer networking which consists of installation, administration, and computer networking management.
8. Game Technology: to explore development of game applications, based on computer programming, design tools, and software engine.
9. Data Science: to explore various technology tools, statistics, and machine learning with the goal of discovering hidden patterns from the raw data. It can enhance productivity and create significant value.
10. Cyber Security: to explore specialized computer security related techniques and implementation.
11. Software Engineering: to explore the various methodologies and software engineering equipment.

Entrepreneur and Employability Skill (Internship)

The objective of this group of subject is to prepare students with professional experience, work ethics and to experience the working environment. The students are expected to apply and to practice their knowledge in the real working area such as industry, research lab, and also an entrepreneur startup. They are also expected to give reports as the result of the subjects.

Course Structure

| Sem | Code | Course Name | SCU | Total |
|-----|--|---|-----|-------|
| 1 | CHAR6034031 | Character Building: Pancasila | 2 | 20 |
| | MATH6128031 | Discrete Mathematics | 4 | |
| | MATH6129031 | Linear Algebra | 2 | |
| | COMP6421031 | Algorithm and Programming ²⁾ | 4/2 | |
| | COMP6839031 | Program Design Methods ¹⁾ | 2 | |
| | LANG6097031 | Indonesian | 2 | |
| | STAT6190031 | Basic Statistics | 2 | |
| | Foreign Language Courses ³⁾ | | 0 | |
| 2 | CHAR6035031 | Character Building: Kewarganegaraan | 2 | 20 |

| Sem | Code | Course Name | SCU | Total |
|-----|---|--|-----|-------|
| | COMP6458031 | Data Structures ^{1), 2)} | 4/2 | |
| | MATH6135031 | Calculus | 4 | |
| | ENPR6189032 | Entrepreneurship: Prototyping | 2 | |
| | COMP6846031 | Human and Computer Interaction ²⁾ | 2/1 | |
| | MATH6192031 | Scientific Computing | 2/1 | |
| | Foreign Language Courses ³⁾ | | 0 | |
| | | | | |
| 3 | CHAR6038031 | Character Building: Agama | 2 | 21 |
| | COMP6472031 | Algorithm Design and Analysis ¹⁾ | 4 | |
| | CPEN6249031 | Computer Networks ²⁾ | 2/1 | |
| | COMP6468031 | Artificial Intelligence | 4 | |
| | SCIE6065031 | Computational Physics | 2/1 | |
| | COMP6847031 | Database Technology | 2/1 | |
| | COMP6848031 | Object Oriented Programming ¹⁾ | 2 | |
| | Foreign Language Courses ³⁾ | | 0 | |
| 4 | COMP6715031 | Research Methodology in Computer Science ¹⁾ | 2 | 9 |
| | SCIE6066031 | Computational Biology | 2/1 | |
| | COMP6466031 | Software Engineering ²⁾ | 4 | |
| | Streaming: Internet Of Things (IoT) ⁴⁾ | | | 12 |
| | COMP6849031 | Embedded System | 2/2 | |
| | COMP6850031 | Multimedia & Mixed Reality | 2/1 | |
| | MOBI6072031 | Mobile Programming | 2/1 | |
| | COMP6655031 | Cyber Security in IoT | 2 | |
| | Streaming: Cloud Technology (CT) ⁴⁾ | | | 10 |
| | COMP6988031 | Introduction to Cloud Computing | 2/2 | |
| | COMP6989031 | Web Based Programming | 2/2 | |
| | COMP6990031 | Introduction to Cloud security | 2 | |
| | Streaming: Digital Creative Technology (DCT) ⁵⁾ | | | 10 |
| | COMP6679004 | Web Programming ²⁾ | 4 | |
| | COSC6109004 | Popular Programming Technology ¹⁾ | 4 | |
| | COSC6001004 | User Experience | 2 | |
| | Streaming: Immersive Technology ⁵⁾ | | | 10 |
| | COSC6002004 | User Experience for Digital Immersive Technology | 2 | |
| | COSC6003004 | Multimedia and 3D Modelling | 2/2 | |
| | COSC6004004 | 3D Web Programming | 2/2 | |
| | Streaming: Software Engineering (SE) ⁶⁾ | | | 12 |
| | COSC6092001 | Code Reengineering | 2/2 | |
| | COSC6093001 | Software Architecture | 2/2 | |
| | COSC6094001 | Mobile Hybrid Solution ²⁾ | 2/2 | |
| | Streaming: Intelligent System (IS) ⁶⁾ | | | 12 |
| | COMP6885001 | Natural Language Processing ^{1)&2)} | 2/2 | |
| | COMP6577001 | Machine Learning | 4 | |
| | COMP7116001 | Computer Vision ¹⁾ | 2/2 | |

| Sem | Code | Course Name | SCU | Total |
|-----|---|---|-----|-------|
| | Streaming: Interactive Multimedia (IM) ⁶⁾ | | | 12 |
| | COMP8129001 | User Experience ^{1)&2)} | 2/2 | |
| | COSC6095001 | Multimedia system and Programming Foundation ^{1)&2)} | 2/2 | |
| | COSC6096001 | Extended Reality | 2 | |
| | COMP7128001 | Game Design | 2 | |
| | Streaming: Database Technology (DT) ⁶⁾ | | | 12 |
| | COSC6097001 | Data Engineering | 2/1 | |
| | COMP6579001 | Big Data Processing ^{1)&2)} | 2/2 | |
| | COSC6098001 | Data Visualization | 2 | |
| | COSC6099001 | Data Analytics | 2/1 | |
| | Streaming: Network Technology (NT) ⁶⁾ | | | 12 |
| | COMP6824001 | Computer Security ¹⁾ | 2/2 | |
| | COMP6584001 | Network and System Programming ^{1)&2)} | 2/2 | |
| | COSC6100001 | Cloud Infrastructure | 2/2 | |
| | Streaming: Game Application Technology (GAT) ⁶⁾ | | | 10 |
| | GAME6069001 | Game Programming ^{1)&2)} | 4 | |
| | GAME6082001 | Game Animation ^{1)&2)} | 2 | |
| | COSC6094001 | Mobile Hybrid Solution | 2/2 | |
| | Streaming: Data Science (DS) ⁶⁾ | | | 10 |
| | DTSC6013001 | Data Mining and Visualization ^{1)&2)} | 2 | |
| | DTSC6011001 | Survey and Sampling Methods | 2 | |
| | COMP6577001 | Machine Learning | 4 | |
| | DTSC6003001 | Big Data Infrastructure and Technology ¹⁾ | 2 | |
| | Streaming: Cyber Security (Cyber) ⁶⁾ | | | 10 |
| | COMP6842001 | Server and Network Administration ^{1)&2)} | 2 | |
| | COMP6549001 | Software Security ^{1), 2)} | 2 | |
| | COMP6844001 | Mobile Penetration Testing ²⁾ | 2/2 | |
| | LAWS6110001 | Cyber Law | 2 | |
| | Streaming: Mobile And Game Technology ⁷⁾ | | | 12 |
| | COMP6897051 | Game Design & Programming | 2/2 | |
| | COMP6898051 | User Experience | 2 | |
| | COMP6899051 | Machine Learning | 2 | |
| | COMP6900051 | Mobile Embedded Systems | 4 | |
| | Streaming: AI-Driven Development ⁸⁾ | | | 12 |
| | COSC6148060 | Machine Learning & Data Mining for Business | 4 | |
| | COSC6149060 | Cloud Architecture | 2 | |
| | COSC6150060 | DevOps Engineering | 4 | |
| | COSC6151060 | Geographic Information System | 2 | |
| | General Course ⁹⁾ | | | 2 |
| | COMP6955004 | Database Design | 2 | |
| | Foreign Language Courses ³⁾ | | 0 | 0 |

| Sem | Code | Course Name | SCU | Total |
|-----|---|--|-----|-------|
| 5 | Minor Program ^{4), 5), 6)} | | 12 | 12 |
| | Free Electives ⁶⁾ | | 12 | 12 |
| | COMP6470031 | Compilation Techniques | 4 | 8 |
| | COMP6716031 | Operating System | 2 | |
| | ENTR6524032 | Entrepreneurship: Market Validation | 2 | |
| | Streaming: Internet Of Things (IoT) ⁴⁾ | | | 8 |
| | COMP6757031 | Computer vision in IoT | 2/2 | |
| | COMP6882031 | IoT Development and Architecture | 2/2 | |
| | Streaming: Cloud Technology (CT) ⁴⁾ | | | 10 |
| | COMP6991031 | Cloud Services | 2/2 | |
| | COMP6993031 | Application Development in Cloud | 2/2 | |
| | COMP6992031 | Software Development Operations in Cloud Environments | 2 | |
| | Streaming: Digital Creative Technology (DCT) ⁵⁾ | | | 10 |
| | COMP6678004 | Big Data Analytics for Business | 4 | |
| | MOBI6063004 | Mobile Application Programming ²⁾ | 4 | |
| | COSC6005004 | Agile Software Development | 2 | |
| | Streaming: Immersive Technology ⁵⁾ | | | 10 |
| | COSC6006004 | Augmented Reality Application Programming | 2/2 | |
| | COSC6007004 | Virtual Reality Application Programming | 2/2 | |
| | COSC6008004 | Immersive Technology Capstone Project | 2 | |
| | Streaming: Software Engineering (SE) ⁶⁾ | | | 8 |
| | COSC6102001 | Software Metrics and Quality assurance | 2/2 | |
| | COSC6103001 | Mobile Technology Solution ²⁾ | 2/2 | |
| | Streaming: Intelligent System (IS) ⁶⁾ | | | 8 |
| | COMP6822001 | Speech Recognition | 2/2 | |
| | COMP6826001 | Deep Learning | 2/2 | |
| | Streaming: Interactive Multimedia (IM) ⁶⁾ | | | 8 |
| | COMP6583001 | Computer Graphics | 2/2 | |
| | COMP7139001 | Game Programming ¹⁾ | 4 | |
| | Streaming: Database Technology (DT) ⁶⁾ | | | 8 |
| | COMP6590001 | Geographical Information System ¹⁾ | 2/2 | |
| | COMP6140001 | Data Mining | 2/2 | |
| | Streaming: Network Technology (NT) ⁶⁾ | | | 8 |
| | COSC6104001 | Cloud Interfacing with Virtualization | 2/2 | |
| | COSC6105001 | Cloud Native Applications | 2/2 | |
| | Streaming: Game Application Technology (GAT) ⁶⁾ | | | 12 |
| | GAME6093001 | Serious Game & Gamification | 2 | |
| | GAME6084001 | Game Development Capstone Project ^{1)&2)} | 4 | |
| | GAME6071001 | 3D Modeling for Games ^{1)&2)} | 2 | |
| | GAME6092001 | Fundamental in Game Balancing | 2 | |
| | GAME6091001 | Advanced Game Development | 2 | |

| Sem | Code | Course Name | SCU | Total |
|------------------------------|--|--|-----|-------|
| | Streaming: Data Science (DS) ⁶⁾ | | | 12 |
| | DTSC6010001 | Bayesian Data Analysis | 2 | |
| | COMP6826001 | Deep Learning | 2/2 | |
| | DTSC6002001 | Data Management and Organization ¹⁾ | 2 | |
| | DTSC6008001 | Text Mining | 2 | |
| | DTSC6004001 | Data Security | 2 | |
| | Streaming: Cyber Security (Cyber) ⁶⁾ | | | 12 |
| | COMP6544001 | Network Penetration Testing ²⁾ | 2/2 | |
| | COMP6695001 | Secure Programming ^{1)&2)} | 2 | |
| | COMP6843001 | Reverse Engineering and Binary Exploitation | 2 | |
| | COMP6646001 | Computer Forensic ^{1)&2)} | 2 | |
| | COMP6873001 | Blockchain Fundamental | 2 | |
| | Streaming: Mobile And Game Technology ⁷⁾ | | | 12 |
| | COMP6903051 | Computer Vision | 2/2 | |
| | COMP6905051 | Mobile and Game Development Capstone Project | 4 | |
| | Streaming: AI-Driven Development ⁸⁾ | | | |
| | COSC6152060 | Deep Learning & MLOps | 4 | |
| | COSC6153060 | Capstone Project | 4 | |
| | Elective Course for Stream and Minor Program Binus @Bandung | | | |
| | COSC6161031 | Introduction to Biomedical Science | 2 | 2 |
| | COSC6162031 | Introduction to Semiconductor Devices and Applications | 2 | 2 |
| | COSC6163031 | IT Project | 2 | 2 |
| | Elective Course for Stream SE, IS, IM, DT, NT and Minor Greater Jakarta | | | |
| | MOBI6059001 | Mobile Programming | 2 | 2 |
| | COMP6586001 | Embedded Systems | 2 | 2 |
| | COMP6226001 | Competitive Programming ¹⁾ | 2 | 2 |
| | COMP6681001 | Web Programming | 2 | 2 |
| | COSC6065001 | Network Security Fundamental | 2 | 2 |
| | COSC6101001 | Mobile Professional Solution | 2 | 2 |
| | General Course for Stream and Minor Program Binus @Semarang | | | |
| | COMP6923051 | Hybrid Application Development | 2 | 2 |
| | Minor Program ^{4), 5), 6)} | | 8 | 8 |
| | Free Electives ⁶⁾ | | 8 | 8 |
| 6 | Enrichment Program I | | 20 | 20 |
| 7 | Enrichment Program II | | 20 | 20 |
| 8 | COMP6747031 | Pre-Thesis | 2 | 6 |
| | COMP6748031 | Thesis | 4 | |
| | COMP6501031 | Thesis | 6 | 6 |
| Total Credits 146 SCU | | | | |

1) This course is delivered in English

2) Global Learning System course

3) Students will take foreign language courses according to BINUS University English proficiency test results. See foreign language courses appendix for the detail.

- 4) Conducted in BINUS@Bandung
- 5) Conducted in BINUS@Malang
- 6) Conducted in BINUS@Greater Jakarta
- 7) Conducted in BINUS@Semarang
- 8) Conducted in BINUS@Medan

For 4th Semester:

- General Course must be chosen by mobility students to BINUS@Malang (include streaming and minor program)

For 5th Semester

- Students @Bandung must choose one course (2 credits) of the elective course
- Students must choose one course (2 credits) from the list of elective courses for Minor Program Jakarta or Streaming SE, IS, IM,DT, NT.
- Students must choose course Hybrid Application Development from the elective course for Minor Metaverse in Business and Streaming MGT
- Students must choose course Applied Artificial Intelligence for Enterprise from the elective course for Minor Global Business and Streaming AI-Driven Development

Streaming/Minor/Free Electives:

-) In 4th Semester, Students are required to choose one study plans, between Streaming, Minor Program, Free Electives. Please refer to the Minor program, free electives and cross streaming course list appendix for details.

Foreign Language Courses:

Students will take foreign language courses according to BINUS University English proficiency test results. See foreign language courses appendix for the details. Students must pass with a minimum Grade of C.

Pre-thesis (2 SCU) & Thesis (4 SCU) can be taken in the 6th and/or 7th semester by the students who meet the requirements from the Study Program/Program

Appendix Foreign Language Courses

| Foreign Language Courses | | SCU |
|--------------------------|-------------------------------|-----|
| ENGL6270031 | English for Frontrunners | 0 |
| ENGL6271031 | English for Independent Users | 0 |
| ENGL6272031 | English for Professionals | 0 |
| JAPN6209031 | Basic Japanese Language | 0 |
| CHIN6192031 | Basic Chinese Language | 0 |

1. Students with Beelingua Placement Test score less than 60 are required to take English for Frontrunners and English for Independent Users.
2. Students with Beelingua Placement Test score between 60 and 99 are required to take English for Independent Users and English for Professionals.
3. Students with Beelingua Placement Test score greater than 99 are required to take English for Professionals. Additionally, students may choose to take either Basic Japanese Language or Basic Chinese Language
4. Students are required to pass the foreign language courses before they take enrichment.
5. Students can see the requirements to pass the foreign language courses at BINUSMAYA – Beelingua

Minor Scheme

| Minor Program | Semester 4 | Semester 5 |
|--|------------|------------|
| Minor @ Binus Kemanggisian | | |
| Digital Ecosystem | - | - |
| Human Capital in Digital Workplace | v | v |
| Sustainable Development | v | v |
| Cross Cultural Communication | v | v |
| Interactive & Users Experience Design | v | v |
| Data Analytics | v | v |
| Robotic Process Automation | v | v |
| Blockchain Technology and Business | v | v |
| Creative Digital Storytelling | v | v |
| Digital Banking | v | v |
| Event Business and Entertainment | v | v |
| English for Business Professionals | v | v |
| Minor @ Binus Alam Sutera | | |
| Digital Transformation | v | v |
| Minor @ Binus Bekasi | | |
| Culinary | v | v |
| Korean Culture and Creativity | v | v |
| Minor @ Binus Malang | | |
| Digital Technopreneur | v | v |
| English for Business Professionals | v | v |
| Chinese for Career Pathway | v | v |
| Minor @ Binus Bandung | | |
| DesignPreneur | v | v |
| Minor @ Binus Semarang | | |
| Content Creation | v | v |
| Metaverse in Business | v | v |
| Immersive Journey to Japanese Language and Culture | v | v |
| Minor @ Binus Medan | | |
| Global Business | v | v |

The minor programs can change anytime based on the trends of knowledge and industry each year. Students will receive information about the updated minor programs during the registration period.

1. Minor Program : Human Capital in Digital Workplace Fundamental Courses

| Course | SCU |
|--|-----------|
| PSYC6174027 Psychology in The Workplace | 4 |
| MGMT6349005 Digital Workplace Strategy | 4 |
| ISYS6551003 Digital Workplace and Technology | 4 |
| LAWS6157028 Legal Aspects in Digital Workplace | 4 |
| PSYC6175027 Human Resources Development | 4 |
| Total SCU | 20 |

Minor Program Sustainable Development
Fundamental Courses

| Course | | SCU |
|-------------|---|-----|
| ISYE6154011 | Sustainable Design and Manufacture | 4 |
| CPEN6217010 | Digital for Sustainable Development | 4 |
| ARCH6119014 | Introduction to Sustainable Development | 2 |
| Total SCU | | 10 |

2. Minor Program: Sustainable Development

Fundamental Courses

| Course | | SCU |
|-------------|---|-----|
| ISYE6154011 | Sustainable Design and Manufacture | 4 |
| CPEN6217010 | Digital for Sustainable Development | 4 |
| ARCH6119014 | Introduction to Sustainable Development | 2 |
| Total SCU | | 10 |

Supporting Courses

| Course | | SCU |
|-------------|---|-----|
| ISYE6155011 | Occupational, Health, Safety, and Administration in Engineering | 2 |
| DSGN6835008 | Engineering Material | 4 |
| CIVL6118013 | Engineering Economic | 4 |
| Total SCU | | 10 |

3. Minor Program : Cross Cultural Communication

Fundamental Courses

| Course | | SCU |
|-------------|--|-----|
| CHIN6132026 | Chinese Conversation in Daily Activities | 4 |
| COMM6502019 | Communication in Diversity | 2 |
| BUSS6170025 | Asian Business Ethics | 4 |
| Total SCU | | 10 |

Supporting Courses

| Course | | SCU |
|-------------|--|-----|
| CHIN6134026 | Chinese Conversation in Business Communication | 4 |
| LAWS6158028 | Private International Law | 2 |
| INTR6135029 | Comparative Politics | 4 |
| Total SCU | | 10 |

4. Minor Program : Interactive & Users Experience Design

Fundamental Courses

| Course | | SCU |
|-------------|---------------------------------------|-----|
| ISYS6553003 | User-Centered Research and Evaluation | 4 |
| PSYC6176027 | Psychology and User Experience | 4 |
| DSIN6003007 | Fundamental of Interface Design | 2 |

| Course | SCU |
|------------------|-----------|
| Total SCU | 10 |

Supporting Courses

| Course | SCU |
|---|-----------|
| ISYS6554003 Core Principles: Interactive Design | 4 |
| DSGN6837007 Digital Design Production | 4 |
| ISYS6556003 Information Architecture | 2 |
| Total SCU | 10 |

5. Minor Program : Data Analytic

Fundamental Courses

| Course | SCU |
|---|-----------|
| ISYS6680003 Introduction to Data Analytics | 2 |
| ISYS6681003 Data Management & Descriptive Analytics | 4 |
| STAT6198049 Statistical for Decision Making | 4 |
| Total SCU | 10 |

Supporting Courses

| Course | SCU |
|--|-----------|
| ISYS6682003 Application of Predictive Analytics to Business Data | 4 |
| ISYS6683003 Prescriptive Analytics and Optimization | 4 |
| MKTG6312005 Digitalization of Markets and Consumption | 2 |
| Total SCU | 10 |

6. Minor Program : Robotic Process Automation

Fundamental Courses

| Course | SCU |
|--|-----------|
| COMP6857001 Basic Programming for Automation | 2 |
| COMP6858001 RPA Concept & Design | 2 |
| ISYS6684003 RPA Developer Fundamental | 4 |
| ISYS6687003 Business Process Improvement | 2 |
| Total SCU | 10 |

Supporting Courses

| Course | SCU |
|--|-----------|
| ISYS6685003 RPA Developer Advance | 4 |
| ISYS6686003 RPA Business Analytics Fundamental | 4 |
| COMP6859001 Intelligence Automation | 2 |
| Total SCU | 10 |

7. Minor Program: Event Business and Entertainment

Fundamental Courses

| Course | | SCU |
|-------------|--|-----|
| HTMN6151021 | Event Marketing Management | 2 |
| HTMN6152021 | Catering Management | 4 |
| TRSM6232022 | MICE (Meeting, Incentive, Convention, Exhibition) Management | 4 |
| Total SCU | | 10 |

Supporting Courses

| Course | | SCU |
|-------------|--|-----|
| TRSM6233022 | Event Sponsorship and Funding | 2 |
| TRSM6234022 | Sport and Entertainment Event Management | 4 |
| TRSM6235022 | Festival & Cultural Event | 4 |
| Total SCU | | 10 |

8. Minor Program: Creative Digital Storytelling

Fundamental Courses

| Course | | SCU |
|-------------|---------------------------------------|-----|
| ENGL6274024 | Approaches in Multimodal Storytelling | 2 |
| DSIN6033007 | Visual Storytelling | 2 |
| ENGL6275024 | Storytelling for Business | 2 |
| FILM6118009 | Script Development & Pitching | 4 |
| Total SCU | | 10 |

Supporting Courses

| Course | | SCU |
|-------------|---|-----|
| ENGL6276024 | Cultures, Language, and Arts Production | 4 |
| JAPN6212025 | Anime and Manga as Storytelling | 2 |
| ENGL6277024 | Music as Medium for Storytelling | 4 |
| Total SCU | | 10 |

9. Minor Program: Digital Banking

Fundamental Courses

| Course | | SCU |
|-------------|--|-----|
| ISYS6824003 | Technology Innovation in Banking | 2 |
| FINC6217020 | Bank Risk Management in the Digital Era | 4 |
| FINC6218020 | Digital Finance and The Role of Central Bank | 4 |
| Total SCU | | 10 |

Supporting Courses

| Course | | SCU |
|-------------|--|-----|
| MGMT6510005 | Business Process Management in Banking and Finance | 4 |
| ISYS6825003 | Data Analytics in Banking and Finance | 4 |
| MGMT6511005 | Digital Leadership | 2 |

| Course | SCU |
|------------------|-----------|
| Total SCU | 10 |

10.Minor Program: Blockchain Technology and Business

Fundamental Courses

| Course | SCU |
|---|-----------|
| ISYS6826003 Introduction to Blockchain Technology | 4 |
| ISYS6827003 Blockchain Economy & Business | 4 |
| DTSC6016001 Basic Blockchain Programming | 2 |
| Total SCU | 10 |

Supporting Courses

| Course | SCU |
|---|-----------|
| ISYS6828003 Blockchain Architecture Design and Implementation | 4 |
| DTSC6017001 Advanced Blockchain Programming | 2 |
| DTSC6018001 Prototyping Blockchain Project | 4 |
| Total SCU | 10 |

11.Minor Program: English for Business Professionals

Fundamental Courses

| Course | SCU |
|---|-----------|
| ENGL6154024 English for Business Communications | 4 |
| MKTG6112024 Language Innovations in Marketing and Advertising | 2 |
| ENGL6244024 Social Media Broadcasting | 4 |
| Total SCU | 10 |

Minor Supporting Courses

| Course | SCU |
|---|-----------|
| ENGL6258024 English for Global Leadership | 2 |
| ENGL6169024 English for Professionals | 2 |
| COMM6506024 Current Issues in Business Communications | 2 |
| ENGL6245024 Business Rhetoric | 4 |
| Total SCU | 10 |

12.Minor Program: Digital Transformation

Fundamental Courses

| Course | SCU |
|---|-----------|
| ISYS6559003 Business Models and Technology Innovation | 4 |
| ISYS6557003 Business Data Management | 4 |
| MGMT6484005 Digital Strategy | 2 |
| Total SCU | 10 |

Supporting Courses

| Course | | SCU |
|-------------|---|-----|
| ISYS6695003 | Digital Marketing Analysis | 4 |
| STAT6200049 | Practical Statistics for Digital Business | 4 |
| ISYS6560003 | Success Factor for Leading Digital Transformation | 2 |
| Total SCU | | 10 |

13.Minor Program: Culinary

Fundamental Courses

| Course | | SCU |
|-------------|------------------------------|-----|
| HTMN6108021 | Food and Beverage Management | 2 |
| HTMN6008021 | Kitchen Operation | 4 |
| HTMN6128021 | Pastry and Bakery Operation | 4 |
| Total SCU | | 10 |

SCU for HTMN6008021, HTMN6128021 are practical

Supporting Courses

| Course | | SCU |
|-------------|----------------------|-----|
| HTMN6155021 | Indonesian Cuisine | 4 |
| HTMN6125021 | Restaurant Operation | 4 |
| HTMN6154021 | Culinary Tourism | 2 |
| Total SCU | | 10 |

SCU for HTMN6155021, HTMN6125021 are practical

14.Minor Program : Korean Culture And Creativity

Minor Fundamental Courses

| Course | | SCU |
|-------------|----------------------------------|-----|
| HTMN6163021 | Korean Cuisine and Culinary Arts | 4 |
| COMM6718019 | Korean Language and Media | 4 |
| FILM6134009 | Hallyu Creative Content | 2 |
| Total SCU | | 10 |

Minor Supporting Courses

| Course | | SCU |
|-------------|---|-----|
| FILM6135009 | K-Drama and Beyond: Analysis and Appreciation | 4 |
| COMM6719019 | K-Pop Culture and Performance | 4 |
| MKTG6339005 | K-Pop and K-Drama Marketing and Promotion | 2 |
| Total SCU | | 10 |

15.Minor Program: Digital Technopreneur

Fundamental Courses

| Course | | SCU |
|-------------|-------------------------------|-----|
| ENTR6528002 | The Entrepreneurial Innovator | 4 |
| DSGN6839006 | Interactive Design | 4 |

| | | |
|------------------|----------------------------|-----------|
| COMM6504018 | Digital Branding | 2 |
| ENPR6196002 | Market Intelligence | 2 |
| COMP6687004 | User Experience Design | 4 |
| DSGN6844023 | Prototyping Digital Future | 4 |
| Total SCU | | 20 |

16.Minor Program : Chinese For Career Pathways

Minor Fundamental Courses

| Course | | SCU |
|-------------|----------------------------------|-----|
| CHIN6196026 | Mandarin for Future Career | 4 |
| CHIN6197026 | Easy Way to HSK 2 Preparation | 4 |
| CHIN6198026 | Exploring Modern Chinese Culture | 2 |
| Total SCU | | 10 |

Minor Supporting Courses

| Course | | SCU |
|-------------|---|-----|
| CHIN6199026 | Chinese Digital Technology | 2 |
| CHIN6200026 | Traveling to China | 2 |
| MKTG6340005 | Global Strategic Marketing: Chinese Perspective | 4 |
| MGMT6567005 | Special Topics in Chinese Business | 2 |
| Total SCU | | 10 |

17.Minor Program: Designpreneur

Fundamental Courses

| Course | | SCU |
|-------------|--------------------------------|-----|
| ENTR6525032 | Fundamental of Designpreneur | 4 |
| COMP6688031 | UI/UX Development | 4 |
| DSGN6797034 | Surface Packaging Design | 4 |
| ENTR6526032 | Hospitality and Service Design | 4 |
| DSGN6843033 | Project Design | 4 |
| Total SCU | | 20 |

18.Minor Program: Metaverse in Business

Fundamental Courses

| Fundamental Courses | | |
|---------------------|-------------------|-----|
| Course | | SCU |
| ISYS6777052 | Business Model | 2 |
| COMP6889051 | Virtual Reality | 4 |
| COMP6890051 | Augmented reality | 4 |
| Total SCU | | 10 |

Supporting Courses

| Course | SCU |
|--------|-----|
|--------|-----|

| | | |
|------------------|------------------|-----------|
| ISYS6778052 | Data Analytics | 2 |
| DSGN6981053 | Design Thinking | 4 |
| DSGN6980053 | Interface Design | 4 |
| Total SCU | | 10 |

19. Minor Program: Content Creation

Fundamental Courses

| Course | | SCU |
|------------------|--------------------------|-----------|
| FILM6105009 | Filmmaking Fundamental | 4 |
| MKTG6392055 | Digital marketing | 4 |
| DSIN6042053 | Photography for Creators | 2 |
| Total SCU | | 10 |

Supporting Courses

| Course | | SCU |
|------------------|---|-----------|
| DSGN6990053 | Creative Storytelling | 4 |
| DSIN6043053 | Strategic Influence | 2 |
| DSIN6041053 | Introduction to Visual Communication Design | 4 |
| Total SCU | | 10 |

20. Minor Program: Immersive Journey to Japanese Language and Culture

Minor Fundamental Courses

Students must take all fundamental courses to pass the minor program:

| Course | | SCU |
|------------------|--|-----------|
| JAPN6221025 | Essential Japanese Grammar (<i>Yoku Tsukaeru Bunpou</i>) | 4 |
| JAPN6222025 | Survival Japanese in Various Situations (<i>Nihon E Ikou, Yasashii Kaiwa De</i>) | 4 |
| JAPN6223025 | Ideas and Images of Japan (<i>Nihon Jijou</i>) | 2 |
| Total SCU | | 10 |

Minor Supporting Courses

Students must take Supporting courses:

| Course | | SCU |
|------------------|--|-----------|
| JAPN6224025 | Japanese Reading Comprehension (<i>Tanoshiku Yomou</i>) | 4 |
| JAPN6225025 | Understanding Native Japanese Speakers (<i>Tanoshiku Kikou</i>) | 2 |
| JAPN6226025 | Japanese N5 Level Certification Preparation (<i>Nihongo Charenji N5</i>) | 4 |
| Total SCU | | 10 |

21. Minor Program : Global Creative Business and Technology

Minor Fundamental Courses

Students must take all fundamental courses to pass the minor program:

| Course | | SCU |
|-------------|--------------------------|-----|
| DSIN6142066 | Global Uniqueness Design | 4 |

| | | |
|------------------|---|-----------|
| BUSS6275061 | E-Commerce and Digital Entrepreneurship | 4 |
| COSC6159060 | Global Emerging Technologies | 4 |
| ECON6109064 | Introduction to Digital Economy | 4 |
| TRDE6001065 | Global Regulatory Environment | 4 |
| Total SCU | | 20 |

Appendix: Free Electives (4th & 5th Semester)

| No | Course Owner Department | Course Code | Course Name | SCU | Semester |
|----|-----------------------------------|-------------|---|-----|----------|
| 1 | Business Creation | ENTR6580005 | Digital Business Transformation | 2 | 4 |
| 2 | Business Creation | ENTR6494005 | Managing Growing Business | 2 | 5 |
| 3 | Business Management | MGMT6401005 | Digital Supply Chain Management | 2 | 4 |
| 4 | Business Management | MKTG6298005 | Service Marketing Management | 2 | 4 |
| 5 | Business Management | MGMT6365005 | Current Issue in Service Business and Technology | 2 | 5 |
| 6 | International Business Management | BUSS6162005 | Market Entry Strategy | 2 | 4 |
| 7 | International Business Management | MGMT6370005 | E-Business for International Business | 2 | 5 |
| 8 | Management | BUSS6088005 | Current Issue in Business and Technology | 2 | 4 |
| 9 | Management | BUSS6109005 | Business Development | 4 | 4 |
| 10 | Management | BUSS6173005 | Managing Innovation and Knowledge | 4 | 4 |
| 11 | Management | ISYS6079005 | E-Business System | 4 | 4 |
| 12 | Management | MGMT6276005 | Leadership & Managing Human Capital in Organization | 4 | 4 |
| 13 | Management | MGMT6374005 | Analysis on E-Business Investment | 4 | 4 |
| 14 | Management | ISYS8175005 | E-Business Strategy and Implementation | 4 | 5 |
| 15 | Management | MGMT6029005 | Knowledge Management | 2 | 5 |
| 16 | Management | MGMT6063005 | Strategic Management | 2 | 5 |
| 17 | Management | MGMT6297005 | Operations Management | 4 | 5 |
| 18 | Management | MGMT6341005 | Strategic Management | 4 | 5 |
| 19 | Accounting | ACCT6358020 | Management Audit | 4 | 4 |
| 20 | Accounting Bekasi | ACCT6382020 | Business Process Analysis and Solution | 2 | 4 |
| 21 | Accounting Bekasi | ACCT6389020 | Big Data Analytics in Accounting & Finance | 2 | 5 |
| 22 | Marketing Communication | COMM6541019 | Digital Corporate Communication | 2/2 | 5 |
| 23 | Marketing Communication | COMM6543019 | Digital Brand Communication | 2/2 | 5 |

| No | Course Owner Department | Course Code | Course Name | SCU | Semester |
|----|---------------------------------------|-------------|--|-----|----------|
| 24 | Tourism | TRSM6208022 | Tourism Innovation andProduct Development | 4 | 5 |
| 25 | Civil Engineering | CIVL6025013 | Hydrology | 2 | 5 |
| 26 | Civil Engineering | CIVL6035013 | Airport Engineering | 2 | 5 |
| 27 | Civil Engineering | CIVL6037013 | Railway Engineering | 2 | 5 |
| 28 | Civil Engineering | CIVL6080013 | Construction Methods &Heavy Equipment | 2 | 5 |
| 29 | Civil Engineering | COMP6046013 | Computer Applications inConstruction Management | 2 | 5 |
| 30 | Computer Engineering | CPEN6126010 | Cross Platform Application Development | 4 | 5 |
| 31 | Computer Engineering | CPEN6225010 | Telco Network & Switching System | 2 | 5 |
| 32 | Computer Engineering | CPEN6232010 | Cloud TechnologyPractice | 2 | 5 |
| 33 | Food Technology | FOOD6073015 | Current Issues in FoodTechnology | 2 | 4 |
| 34 | Industrial Engineering | ISYE6041011 | Engineering Economy | 2 | 4 |
| 35 | Industrial Engineering | ISYE6113011 | Leadership & Organizational Behaviour | 2 | 4 |
| 36 | Industrial Engineering | ISYE6181011 | System Engineering &Analysis | 2 | 4 |
| 37 | ComputerScience | COMP6586001 | Embedded Systems | 2 | 5 |
| 38 | ComputerScience | COMP6226001 | Competitive Programming | 2 | 5 |
| 39 | ComputerScience | MOBI6059001 | Mobile Programming | 2 | 5 |
| 40 | ComputerScience | COMP7116001 | Computer Vision | 2/2 | 5 |
| 41 | ComputerScience | COMP6821001 | Web Programming | 2 | 5 |
| 42 | ComputerScience | COMP6590001 | Geographical InformationSystem | 2/2 | 5 |
| 43 | Game Application and Technology | GAME6082001 | Game Animation | 2 | 4 |
| 44 | Game Application andTechnology | GAME6085001 | Object Oriented Game Programming | 2 | 5 |
| 45 | Animation | DSGN6693007 | Motion Graphic | 4 | 4 |
| 46 | Animation | DSGN6694007 | Visual Effect (VFX) | 4 | 4 |
| 47 | Animation | DSGN6695007 | Asset Creation | 4 | 4 |
| 48 | Animation | DSGN6689007 | Concept Art & ProductionDesign | 2 | 5 |
| 49 | Creative Advertising | DSGN6671007 | Creative Writing for Commercials | 4 | 4 |
| 50 | Film | FILM6026009 | History of IndonesianCinema | 2 | 4 |
| 51 | New Media | DSGN6743007 | Digital Graphic Reproduction | 4 | 4 |

| No | Course Owner Department | Course Code | Course Name | SCU | Semester |
|----|--|-------------|---|-----|----------|
| 52 | Interior Design | DSGN6611008 | Business in InteriorDesign | 2 | 4 |
| 53 | Business Information Technology | ISYS6574003 | Information Retrieval | 4 | 4 |
| 54 | Business Information Technology | ISYS6577003 | Machine Learning & Foundations | 2 | 4 |
| 55 | Business Information Technology | ISYS6606003 | Smart Application | 2 | 4 |
| 56 | Business Information Technology | ISYS6579003 | Knowledge-Based AI:Cognitive Systems | 4 | 5 |
| 57 | InformationSystems | BUSS6043003 | Introduction to E-Business | 4 | 4 |
| 58 | InformationSystems | ISYS6016003 | Social MediaFundamental | 2 | 4 |
| 59 | InformationSystems | ISYS6203003 | Mobile Application Development | 2/2 | 4 |
| 60 | InformationSystems | ISYS6210003 | Data Visualization | 2 | 4 |
| 61 | InformationSystems | ISYS6285003 | Digital and New Media | 2 | 4 |
| 62 | InformationSystems | ISYS6594003 | Coding for Finance | 2 | 4 |
| 63 | InformationSystems | ISYS6196003 | Business Analytics | 2 | 5 |
| 64 | InformationSystems | ISYS6199003 | Data & Text Mining | 4 | 5 |
| 65 | InformationSystems | ISYS6202003 | Social Informatics | 4 | 5 |
| 66 | InformationSystems | ISYS6289003 | Collaborative Computing | 4 | 5 |
| 67 | InformationSystems | ISYS6402003 | Business Analytics | 2/2 | 5 |
| 68 | InformationSystems | ISYS8066003 | Business Process Management | 4 | 5 |
| 69 | Information Systems Accounting & Auditing | ISYS6608003 | IT Service & Risk Management | 2 | 5 |
| 70 | Data Science | DTSC6007001 | Deep Learning | 2 | 4 |
| 71 | Data Science | DTSC6008001 | Text Mining | 2 | 5 |
| 72 | Cyber Security | COMP6646001 | Computer Forensic | 2 | 5 |
| 73 | Mobile Application & Technology | MOBI6068001 | Web Design | 2 | 5 |
| 74 | International Relations | INTR8043029 | International Media andState Role | 4 | 4 |
| 75 | International Relations | INTR6162029 | Multiculturalism andDigital Society | 2 | 5 |
| 76 | Business Law | LAWS6017028 | Intellectual PropertyRights | 4 | 4 |
| 77 | Business Law | LAWS6110028 | Cyber Law | 2 | 4 |

| No | Course Owner Department | Course Code | Course Name | SCU | Semester |
|-----|-----------------------------------|-------------|--|-----|----------|
| 78 | Business Law | LAWS6171028 | Business Competition & Consumer Protection Law | 2 | 4 |
| 79 | Business Law | LAWS6052028 | Bankruptcy Law | 2 | 5 |
| 80 | Business Law | LAWS6167028 | Legal Philosophy & Professional Ethics | 2 | 5 |
| 81 | Business Law | LAWS6176028 | Tax Law | 2 | 5 |
| 82 | Chinese Literature | CHIN6157026 | Chinese Business for Etiquette (Beginner) | 4 | 4 |
| 83 | Chinese Literature | CHIN6157026 | Chinese Business for Etiquette (Beginner) | 4 | 5 |
| 84 | English Literature | ENGL6169024 | English for Professionals | 2 | 4 |
| 85 | English Literature | SOCS6021024 | Social and Digital Media Writing | 2 | 4 |
| 86 | English Literature | ENGL6244024 | Social Media Broadcasting | 4 | 5 |
| 87 | Primary Teacher Education | EDUC6018030 | Micro Teaching | 4 | 4 |
| 88 | Primary Teacher Education | EDUC6041030 | Current Issues in Primary Education | 2 | 4 |
| 89 | Primary Teacher Education | EDUC6062030 | International and National Curriculum | 2 | 4 |
| 90 | Primary Teacher Education | EDUC6033030 | Physical Education | 2 | 5 |
| 91 | Primary Teacher Education | EDUC6061030 | ICT for Distance Learning | 2 | 5 |
| 92 | Psychology | PSYC6124027 | Psychology of Early Childhood Education | 4 | 4 |
| 93 | Psychology | PSYC6125027 | Psychology of Special Needs Education | 4 | 4 |
| 94 | Psychology | PSYC6130027 | Human Performance Technology | 4 | 4 |
| 95 | Business Creation | ENTR6580005 | Digital Business Transformation | 2 | 4 |
| 96 | Business Creation | ENTR6494005 | Managing Growing Business | 2 | 5 |
| 97 | Business Management | MGMT6401005 | Digital Supply Chain Management | 2 | 4 |
| 98 | Business Management | MKTG6298005 | Service Marketing Management | 2 | 4 |
| 99 | Business Management | MGMT6365005 | Current Issue in Service Business and Technology | 2 | 5 |
| 100 | International Business Management | BUSS6162005 | Market Entry Strategy | 2 | 4 |

Enrichment Program I (6th Semester) & Enrichment Program II (7th Semester):

-) Student will take one of enrichment program tracks (off campus). See enrichment appendix for the tracks detail.

Enrichment Track Scheme

| Track | Semester 6 | | | | | | | Semester 7 | | | | | | | |
|-------|------------|----|----|----|----|----|-----|------------|----|----|----|----|----|----|-----|
| | IN | RS | EN | CD | SA | IS | etc | IN | RS | EN | CD | SA | IS | FS | etc |
| 1 | v | | | | | | | v | | | | | | | |
| 2 | v | | | | | | | | | | | | | v | |
| 3 | | v | | | | | | | v | | | | | | |
| 4 | | v | | | | | | | | | | | | v | |
| 5 | | | v | | | | | | | v | | | | | |
| 6 | | | | v | | | | v | | | | | | | |
| 7 | | | | v | | | | | | | v | | | | |
| 8 | | | | v | | | | | | | | v | | | |
| 9 | | | | v | | | | | | | | | v | | |
| 10 | | | | | v | | | v | | | | | | | |
| 11 | | | | | v | | | | | | v | | | | |
| 12 | | | | | v | | | | | | | | v | | |
| 13 | | | | | | v | | v | | | | | | | |
| 14 | | | | | | v | | | | | v | | | | |
| 15 | | | | | | v | | | | | | v | | | |
| 16 | | | | | | | v | v | | | | | | | |
| 17 | | | | | | | v | | | | v | | | | |
| 18 | | | | | | | v | | | | | v | | | |

Description:

Student will take one of enrichment program tracks

Note:

| | | | |
|----|-----------------------------------|-----|--|
| IN | : Certified Internship | SA | : Certified Study Abroad |
| RS | : Certified Research | IS | : Certified Specific Independent Study |
| EN | : Certified Entrepreneurship | FS | : Further Study |
| CD | : Certified Community Development | etc | : Study Program Special Purposes |

Students who failed in Enrichment Program I can retake with the same track or change into another track. As for Enrichment Program II, student who failed with Internship, Research, Community Development, and Study Abroad track on Enrichment Program II, can retake with the same track or change into another track. However students who take **Entrepreneurship** track on Enrichment Program II, should **retake with another track**

Certified Internship Track

| Code | Course Name | SCU | Total |
|-----------------------------|---|-----|-------|
| Enrichment Program I | | | 20 |
| COMP6777031 | Industrial Experience in Information Technology | 8 | |

| Code | Course Name | SCU | Total |
|------------------------------|---|-----|-------|
| COMP6778031 | Information Technology Practice in Industrial Experience | 8 | |
| COMP6779031 | EES in Information Technology Industry | 4 | |
| Enrichment Program II | | | 20 |
| COMP6780031 | Professional Experience in Information Technology | | |
| COMP6781031 | Information Technology Practice in Professional Experience | | |
| COMP6782031 | Professional Development in Information Technology Industry | | |

Certified Research Track

| Code | Course Name | SCU | Total |
|------------------------------|--|-----|-------|
| Enrichment Program I | | | 20 |
| RSCH6389031 | Research Experience I | 8 | |
| RSCH6599031 | Scientific Writing I in Computer Science | 8 | |
| RSCH6391031 | Global EES I (Team Work, Communication, Problem Solving & Decision Making) in Computer Science | 4 | |
| Enrichment Program II | | | 20 |
| RSCH6392031 | Research Experience II in Computer Science | 8 | |
| RSCH6600031 | Scientific Writing II in Computer Science | 8 | |
| RSCH6394031 | Global EES II (Self-Management, Planning & Organizing, Initiative & Enterprise) | 4 | |

Certified Entrepreneurship Track

| Code | Course Name | SCU | Total |
|------------------------------|--|-----|-------|
| Enrichment Program I | | | 20 |
| ENPR6001031 | New Venture Initiation in Computer Science | 8 | |
| ENPR6002031 | Computer Science Product Development Process | 8 | |
| ENTR6455031 | EES in New Computer Science Business | 4 | |
| Enrichment Program II | | | 20 |
| ENPR6003031 | Computer Science Product Launching | 8 | |
| ENPR6004031 | Computer Science Business Development | 8 | |
| ENTR6451031 | EES in Computer Science Business Experience | 4 | |

Certified Community Development Track

| Code | Course Name | SCU | Total |
|-----------------------------|-------------|-----|-------|
| Enrichment Program I | | | 20 |

| Code | Course Name | SCU | Total |
|-----------------------|--|-----|-------|
| CMDV6232031 | Community Outreach Project Implementation | 8 | |
| CMDV6374031 | Community Outreach IT Project Design | 8 | |
| CMDV6234031 | Employability and Entrepreneurial Skills in Computer Science Community | 4 | |
| Enrichment Program II | | | 20 |
| CMDV6235031 | Community Development Project Implementation | 8 | |
| CMDV6375031 | Community Development IT Project Design | 8 | |
| CMDV6237031 | Employability and Entrepreneurial Skills in Computer Science Community Development | 4 | |

Certified Study Abroad Track

| Code | Course Name | SCU | Total |
|-----------------------|-------------------------------------|-----|-------|
| Enrichment Program I | | | 20 |
| GLOB6208031 | Elective Course for Study Abroad 1 | 4 | |
| GLOB6209031 | Elective Course for Study Abroad 2 | 4 | |
| GLOB6210031 | Elective Course for Study Abroad 3 | 4 | |
| GLOB6211031 | Elective Course for Study Abroad 4 | 4 | |
| GLOB6268031 | Elective Course for Study Abroad 25 | 4 | |
| GLOB6208031 | Elective Course for Study Abroad 1 | 4 | |
| GLOB6209031 | Elective Course for Study Abroad 2 | 4 | |
| GLOB6210031 | Elective Course for Study Abroad 3 | 4 | |
| GLOB6212031 | Elective Course for Study Abroad 5 | 2 | |
| GLOB6213031 | Elective Course for Study Abroad 6 | 2 | |
| GLOB6214031 | Elective Course for Study Abroad 7 | 2 | |
| GLOB6215031 | Elective Course for Study Abroad 8 | 2 | |
| GLOB6216031 | Elective Course for Study Abroad 9 | 2 | |
| GLOB6217031 | Elective Course for Study Abroad 10 | 2 | |
| GLOB6218031 | Elective Course for Study Abroad 11 | 2 | |
| GLOB6219031 | Elective Course for Study Abroad 12 | 2 | |
| GLOB6269031 | Elective Course for Study Abroad 26 | 2 | |
| GLOB6289031 | Elective Course for Study Abroad 29 | 2 | |
| Enrichment Program II | | | |
| GLOB6220031 | Elective Course for Study Abroad 13 | 4 | |
| GLOB6221031 | Elective Course for Study Abroad 14 | 4 | |
| GLOB6222031 | Elective Course for Study Abroad 15 | 4 | |
| GLOB6223031 | Elective Course for Study Abroad 16 | 4 | |
| GLOB6270031 | Elective Course for Study Abroad 27 | 4 | |
| GLOB6224031 | Elective Course for Study Abroad 17 | 2 | |

| Code | Course Name | SCU | Total |
|-------------|-------------------------------------|-----|-------|
| GLOB6225031 | Elective Course for Study Abroad 18 | 2 | |
| GLOB6226031 | Elective Course for Study Abroad 19 | 2 | |
| GLOB6227031 | Elective Course for Study Abroad 20 | 2 | |
| GLOB6228031 | Elective Course for Study Abroad 21 | 2 | |
| GLOB6229031 | Elective Course for Study Abroad 22 | 2 | |
| GLOB6230031 | Elective Course for Study Abroad 23 | 2 | |
| GLOB6231031 | Elective Course for Study Abroad 24 | 2 | |
| GLOB6271031 | Elective Course for Study Abroad 28 | 2 | |
| GLOB6218031 | Elective Course for Study Abroad 11 | 2 | |
| GLOB6219031 | Elective Course for Study Abroad 12 | 2 | |
| GLOB6269031 | Elective Course for Study Abroad 26 | 2 | |
| GLOB6289031 | Elective Course for Study Abroad 29 | 2 | |

*) Transferred courses will be transferred based on credit transfer policies on study program with total of 20 credits

Certified Specific Independent Study Track

| Code | Course Name | SCU | Total |
|---|---|-----|-------|
| Elective courses list for Specific Independent Study* | | | 20 |
| Enrichment Program I/II | | | |
| MICR6073031 | Course Certification I | 3 | |
| MICR6074031 | Technical Skill Enrichment I | 4 | |
| MICR6075031 | Industrial Project I | 9 | |
| MICR6076031 | Soft Skill Enrichment I | 4 | |
| MICR6077031 | Elec Course for Specific Independent Study 1 | 8 | |
| MICR6078031 | Elec Course for Specific Independent Study 2 | 8 | |
| MICR6079031 | Elec Course for Specific Independent Study 3 | 6 | |
| MICR6080031 | Elec Course for Specific Independent Study 4 | 6 | |
| MICR6081031 | Elec Course for Specific Independent Study 5 | 6 | |
| MICR6082031 | Elec Course for Specific Independent Study 6 | 5 | |
| MICR6083031 | Elec Course for Specific Independent Study 7 | 5 | |
| MICR6084031 | Elec Course for Specific Independent Study 8 | 5 | |
| MICR6085031 | Elec Course for Specific Independent Study 9 | 5 | |
| MICR6086031 | Elec Course for Specific Independent Study 10 | 4 | |
| MICR6087031 | Elec Course for Specific Independent Study 11 | 4 | |
| MICR6088031 | Elec Course for Specific Independent Study 12 | 4 | |
| MICR6089031 | Elec Course for Specific Independent Study 13 | 4 | |
| MICR6090031 | Elec Course for Specific Independent Study 14 | 4 | |
| MICR6091031 | Elec Course for Specific Independent Study 15 | 3 | |
| MICR6092031 | Elec Course for Specific Independent Study 16 | 3 | |
| MICR6093031 | Elec Course for Specific Independent Study 17 | 3 | |
| MICR6094031 | Elec Course for Specific Independent Study 18 | 3 | |

| Code | Course Name | SCU | Total |
|-------------|---|-----|-------|
| MICR6095031 | Elec Course for Specific Independent Study 19 | 3 | |
| MICR6096031 | Elec Course for Specific Independent Study 20 | 3 | |
| MICR6097031 | Elec Course for Specific Independent Study 21 | 2 | |
| MICR6098031 | Elec Course for Specific Independent Study 22 | 2 | |
| MICR6099031 | Elec Course for Specific Independent Study 23 | 2 | |
| MICR6100031 | Elec Course for Specific Independent Study 24 | 2 | |
| MICR6101031 | Elec Course for Specific Independent Study 25 | 2 | |
| MICR6102031 | Elec Course for Specific Independent Study 26 | 2 | |
| MICR6103031 | Elec Course for Specific Independent Study 27 | 2 | |
| MICR6104031 | Elec Course for Specific Independent Study 28 | 2 | |
| MICR6105031 | Elec Course for Specific Independent Study 29 | 1 | |
| MICR6106031 | Elec Course for Specific Independent Study 30 | 1 | |
| MICR6107031 | Elec Course for Specific Independent Study 31 | 1 | |
| MICR6108031 | Elec Course for Specific Independent Study 32 | 1 | |

*) For students who take BINUS certified specific independent study courses, they should take the first 4 courses on the list above (20 credits). Meanwhile, electives courses 1 to 32 are transferred courses for students who take certified specific independent study courses outside BINUS University. Transferred courses will be transferred based on credit transfer policies on study program with total of 20 credits

Certified Further Study Track

Enrichment Program II

Fast track M.MSI

| Code | Course Name | SCU | Total |
|------------------------------|---|-----|-------|
| Enrichment Program II | | | |
| ISYS6654031 | Service Oriented Analysis and Design | 4 | 20 |
| ISYS6655031 | Change Management for Enterprise | 4 | |
| ISYS6656031 | Digital Transformation Management | 4 | |
| ISYS6657031 | Data Analytics for Research | 4 | |
| ISYS6660031 | Visualization and Descriptive Analytics | 4 | |

Fast track M.TI

| Code | Course Name | SCU | Total |
|------------------------------|---|-----|-------|
| Enrichment Program II | | | |
| COMP6815031 | IT Disaster Recovery | 4 | 20 |
| COMP6816031 | Wireless and Cloud Computing Technologies | 4 | |
| COMP6817031 | Internet Tools and Services | 4 | |
| COMP6818031 | Cyber Risk Management | 4 | |
| COMP6819031 | Knowledge Engineering | 4 | |

Student should pass all of these quality controlled courses as listed below:

| No | Course Code | Course Name | Minimal Grade |
|----|-------------|------------------------------------|---------------|
| 1. | CHAR6034031 | Character Building: Pancasila | B |
| 2. | ENTR6524032 | Entrepreneurship: MarketValidation | C |
| 3. | COMP6421031 | Algorithm and Programming | C |
| 4. | COMP6458031 | Data Structures | C |
| 5. | COMP6839031 | Program Design Methods | C |
| 6. | COMP6466031 | Software Engineering | C |
| 7. | COMP6847031 | Database Technology | C |
| 8. | COMP6716031 | Operating System | C |

